~~JAPAN - UNITED STATES~~
~~RADIOBIOLOGICAL CONFERENCE~~

~~Japan Science Council,~~ Ueno, ~~Tokyo~~
Wednesday, November 17

~~FOR IMMEDIATE RELEASE~~

The third day of the Japan - United States Conference on Radiobiology was spent in discussion of United States and Japanese methods for measuring the intensity of atomic radiation from various sources. The United States Delegation exhibited and demonstrated a wide range of radiation detection instruments employed for different purposes. Members of both delegations presented reports on methods used for analyzing and applying the radiation measurements obtained in laboratory and field.

The chairman for the morning session was Dr. Fumio Yamasaki of the Japanese delegation; for the afternoon, Dr. Sterling B. Hendricks of the United States delegation.

The first subject was equipment employed for sampling air and removing airborne radioactivity particles for measurement in the laboratory. The American air sampling equipment used in atomic plants to help safeguard the health of workers and in outdoor locations to gather the air-borne dusts was exhibited, their specifications given, and their operation explained. There was particular interest on the part of the Japanese delegation in the filter papers and other substances used to extract particles from the air; also in the 1-foot squares of rained paper employed at more than a hundred locations in the United States to collect samples of the particles falling freely from the atmosphere or brought down by rain or snow.

The discussion next turned to the instruments used to detect and measure the different types of radiation either in samples collected from plants or outdoors or the radiation which occurs in nature. Special attention was paid to standard methods of calibrating instruments. It was pointed out by Dr. John Harley of the United States Delegation, who opened this discussion, that different readings may be taken on two instruments in the same laboratory or as between instruments in two different laboratories or as between instruments in different countries even from lack of uniform calibration.

Both delegations reported their calibration methods. The discussion moved over not only calibration, but the use and the interpretation of readings on beta-gamma survey instruments, film badges, ionization chambers, and scintillation counters, and on six different types of instruments for measuring neutron radiation. There was particular interest in the latter discussion on the part of Dr. S. Shimizu of Kyoto University, who is building a cyclotron and wishes to install the best available neutron instrumentation for use in research with this machine. Dr. Harley and Mr. Merril Eisenbud, who represented the United States delegation in the instrumentation presentations, made extensive use not only of instruments and components but of color slides of the larger types of fixed instruments employed in American laboratories which could not be transported to the conference, and showed motion pictures of equipment in operation.

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The afternoon session was opened at 1:30 P.M. with Dr. Hendricks presiding. A 16 mm motion picture film and slides were presented to explain in detail the equipment, instruments and methods used on a large scale for surveying the distribution of fallout of radioactive ash when atomic bomb tests are carried out in continental United States. Some of the actual equipment was shown. This showed the procedures for collecting the radioactive dust on gummed paper at the observation points scattered around the country and, mailing to the Atomic Energy Commission, where the many samples are handled mechanically and efficiently, baked into ash, and are automatically measured and recorded for radioactivity.

Afterwards, Dr. Harley used slides and printed matter to explain the method for analyzing minute quantities of radioactive substances included in the material. Interested questions were asked by Dr. Miyake, Dr. Kimura, and others of the Japanese delegation.

Dr. Hendricks followed, using a printed text, giving a detailed explanation of the methods for protecting against various radioactive contamination of workers and the laboratory when carrying out experiments with various radioactive elements. These methods included such factors as the construction of laboratory rooms and the prevention of contamination of the equipment and desk surfaces. A few questions were asked about this subject by the Japanese delegates, such as what should be done for disposing radioactive waste water down the drain, which had been used in the laboratory. Also Dr. Harley was asked what should be done to dispose safely of the samples of radioactive dust, to which question he answered that all of the samples were stored for record.

The day's conference closed at 4 o'clock.

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